MULTI-CD CONTROL FM/MW/LW TUNER DECK AMPLIFIE /MULTI-COMPACT DISC PLAYER

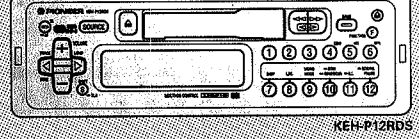
UKW/MW/LW TUNERDECK-VERSTARKER MIT STEUERUNG FÜR MULTI-CD /MEHRPLATTEN-CD-SPIELER

6-DISC

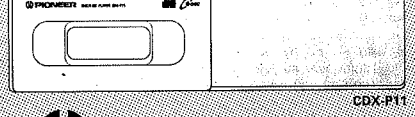
OWNER'S MANUAL
BEDIENUNGSANLEITUNG

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Vielen Dank für den Kauf dieses PIONEER Produkts. Diese Bedienungsanleitung vor der Inbetriebnahme sorgfältig durchlesen.



KEH-P12RDS



CDX-P11

PIONEER

The Art of Entertainment

KEH-P12RDS
CDX-P11

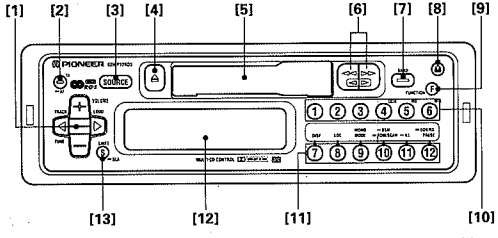


Fig. 1 Abb. 1

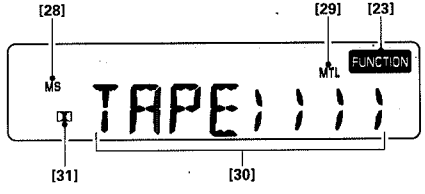


Fig. 3 Abb. 3

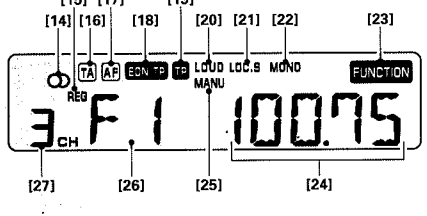


Fig. 2 Abb. 2

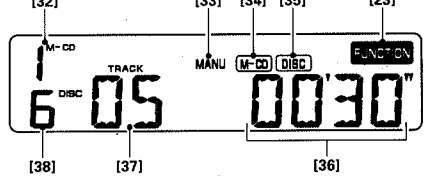


Fig. 4 Abb. 4

Precautions

Cassette player (KEH-P12RDS)

- The "Pioneer CarStereo-Pass" can be used only in Germany.
- *If the car's battery is disconnected for any reason, the preset memory will be erased and must be reprogrammed after reconnection of the battery.*

Multi-play CD player (CDX-P11)

Note:

- A "CLASS 1 LASER PRODUCT" label is affixed to the rear of the player.

- When driving on an uneven road, the multi-play CD player may not reproduce every sound properly.
- During winter the inside of the vehicle may be very cold. If the heater is turned on and the multi-play CD player is used soon after, the disc or optical parts (prism, lens, etc.) may become misted up, and the multi-play CD player will not operate correctly. If the disc is misted up, wipe it with a soft cloth. If the optical parts are misted up, wait for about an hour for them to warm up. They will return to their normal condition.

In case of trouble
When the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station. Never remove the top case of the unit to attempt check or repairs.

Transportation pin

Removing the transportation pin

(Fig. 5)
A transportation pin is installed to protect the player during transportation. Before mounting the player, remove the transportation pin and cover the hole with the supplied adhesive seal. Screw the removed transportation pin into the specified hole; it will be needed if you retransport the player.

1. Peel off adhesive tape and remove the pin.
2. Cover the hole with the seal provided.
3. Screw the pin into the left-side hole of the 2 holes.

Reinstalling the pin

(Fig. 6)
To transport the multi-play CD player, reinstall the transportation pin as follows:

Before removing the player
Play back the first track of a disc, and stop within 10 seconds. Remove the magazine, wait about 10 seconds, then remove the player.

1. Remove the pin.
2. Insert the pin in its original position, and fix it with Scotch tape.
   - *If the pin cannot be installed, contact your nearest dealer or Pioneer service station.*

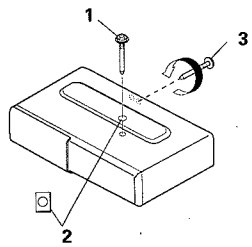


Fig. 5

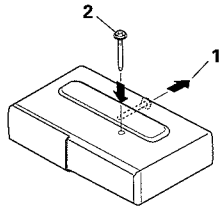


Fig. 6

Connecting the Units

Note:

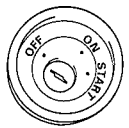
- *This system is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.*
- *To avoid shorts in the electrical system, be sure to disconnect the battery ⊖ cable before beginning installation.*
- *Before installing the multi-play CD player, remove its transportation pin and temporarily connect the cables. Check that all the connections are correct and that the system works normally.*
- *Be sure to press the clear buttons on the cassette player and the multi-play CD player with the tip of a pencil or something similar.*
- *Be sure to connect the ground lead (black) to the vehicle body or some other metal part that is properly grounded to the chassis. If the ground lead is not properly connected, noise may occur or this system may not operate correctly.*
- *Check whether installation and wiring have been completed correctly. Replace the removed car componets, then connect the end of the cable to the negative ⊖ terminal of the battery.*
- *Refer to the owner's manual for details on connecting the various cords of the power amp and other units, then make connections correctly.*
- *Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around them where they lie against metal parts.*
- *Route and secure all wiring so it cannot touch any moving parts, such as the gear shift, handbrake, and seat rails. Do not route wiring in places that get hot, such as near the heater outlet. If the insulation of the wiring melts or gets torn, there is a danger of the wiring short-circuiting to the vehicle body.*
- *Don't pass the orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation can cause a very dangerous short.*
- *Do not shorten any leads. If you do, the protection circuit may fail to work when it should.*
- *Never feed power to other equipment by cutting the insulation of the power supply lead of the system and tapping into the lead. The current capacity of the lead will be exceeded, causing over heating.*

- *When replacing fuses, be sure to use only fuse of the rating prescribed on the fuses holder.*
- *If the RCA pin jacks on the unit are not being used, do not remove the caps attached to the end of the connector.*
- *Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right speaker ⊖ leads are common.*
- *Speaker connected to this system must be high-power types possessing minimum rating of 22 W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here can damage the speakers.*
- *When an external power amp is being used with this system, be sure not to connect the blue lead to the amp's power terminal. Likewise, do not connect the auto-antenna lead to the power terminal of the auto-antenna. Such connection could cause excessive current drain and malfunction.*
- *To prevent incorrect connection, the input side of the IP-BUS connector is blue, and the output side is black. Connect the connectors of the same colors correctly.*

- *When the system is mounted in a vehicle whose ignition switch does not have the ACC (accessory) position as shown in Fig. 8, be sure to connect the red lead of the unit to the terminal controlled by the ignition switch ON/OFF position. If you do not, the vehicle battery may go flat when you leave your vehicle for several hours.*

ACC position

Fig. 7



No ACC position

Fig. 8

- *This system cannot be combined with the separately available CD-P44 multi-installation adapter.*

Connection Diagram (Fig. 9)

1. Cassette player (KEH-P12RDS)
2. Antenna jack
3. Rear out
4. White
5. Red
6. Connecting cords with RCA pin plugs (sold separetely)
7. Power amp (sold separetely)
8. Blue
9. Multi-play CD player (CDX-P11)
10. IP-BUS output (black)
11. IP-BUS input (blue)
12. Blue
    To system control terminal of the power amp or Auto-antenna relay control terminal. (Max. 300 mA 12 VDC).
13. Black (ground)
    To vehicle (metal) body.
14. Orange
    To terminal always supplied with power regardless of ignition switch position.
15. Red
    To electric terminal controlled by ignition switch (12 VDC) ON/OFF.
16. Fuse holder
17. Fuse resistor
18. With a 2 speaker system, connect to the 2 speakers in the front or the rear.
19. Use this for connections when you have the separately available amplifier.
20. Front/left speaker
21. Front/right speaker
22. Rear/left speaker
23. Rear/right speaker
24. Green
25. Gray
26. Green/black
27. Gray/black
28. Green/red
29. Gray/red
30. Black/green
31. Black/gray

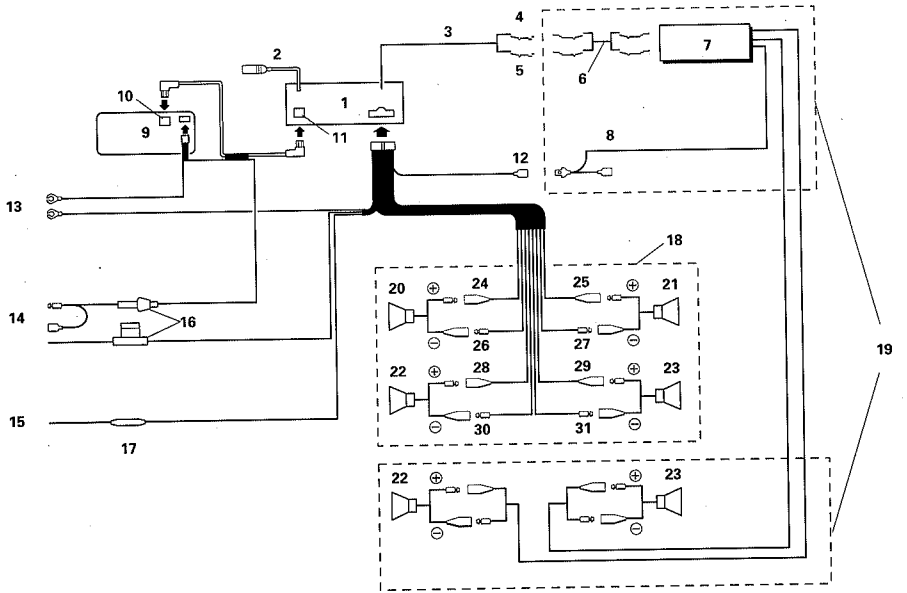


Fig. 9

Installation

Note:

- *Before finally installing the system, connect the wiring temporarily and make sure it is all connected up properly and the unit and the system work properly.*
- *Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.*
- *Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.*
- *Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.*
- *If installation angle exceeds 30° from horizontal, cassette player might not give its optimum performance. (Fig. 10)*

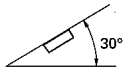


Fig. 10

Cassette player (KEH-P12RDS)

Installation with the rubber bush

(Fig. 11)

1. Dashboard
2. Holder
   After inserting the holder into the dashboard, select the appropriate tabs according to the thickness of the dashboard material and bend them inwards to secure the holder in place.
3. Rubber bush
4. Screw

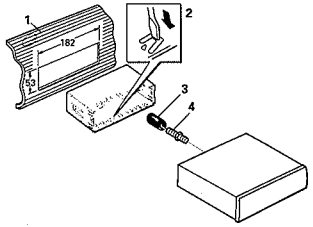


Fig. 11

Removing the unit

(Fig. 12)

5. Insert the supplied extraction keys into the unit, as shown in the figure, until they click into place. Keeping the keys pressed against the sides of the unit, pull the unit out.

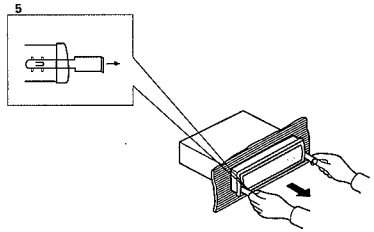


Fig. 12

Multi-play CD player (CDX-P11)

Location

- *Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.*
- *Be sure to mount the player on a rigid surface which is firm enough to hold the player in the proper position under all circumstances. Failure to do so may affect the optimum performance of the player.*
- *Before drilling a hole into the trunk, confirm that there is nothing behind the hole. Never drill a hole in the fuel tank or any other important part.*
- *Do not mount the player near the heater outlet, where it would be affected by heat, or near the doors, where rainwater might splash onto it.*
- *Do not mount the player on the spare tire board or any other unstable place.*
- *Mount the player in a place where it does not prevent the spare tire, jack, or tools from being easily removed.*
- *Do not mount the player anywhere that gets the sun and so becomes hot, like on the dashboard or the rear shelf.*
- *Install this unit at the angle shown in Fig. 13, 14. In addition, choose a place where the CD magazine can be loaded and unloaded easily.*

(Fig. 13)

[1] Use any angle in this range (up to 90 degrees).
[2] The player cannot be installed in this direction.

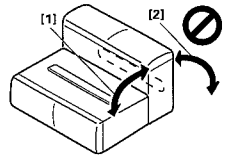


Fig. 13

(Fig. 14)

The player cannot be installed vertically like this. If it is positioned vertically, the magazine slot must face upward.

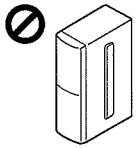


Fig. 14

Mounting the player on the mounting board with self-tapping screws

1. Using the screws (4 × 8 mm), fit the mounting brackets to the sides of the player so they face downward.

(Fig. 15) (Fig. 16)

[1] Screw (4 × 8 mm)
[2] Mounting bracket

- When the player is installed horizontally, use the outer holes marked "H" to attach the mounting bracket.

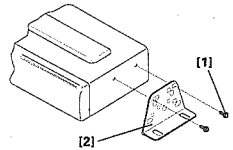


Fig. 15

- When the player is installed vertically, use the holes marked "V" to attach the mounting bracket.

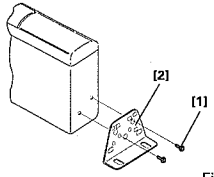


Fig. 16

2. Mount the player on the mounting board with the self-tapping screws (6 × 16 mm).

(Fig. 17) (Fig. 18)

[1] Self-tapping screws (6 × 16mm)
[2] Drill 4 to 4.5 mm diameter hole.
[3] Mounting board

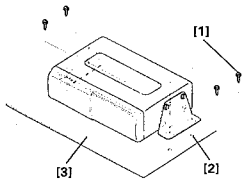


Fig. 17

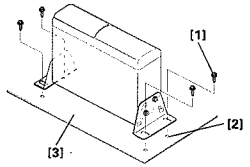


Fig. 18

Suspending the player from the parcel shelf with hex-screws

1. Using the screws (4 × 8 mm), fit the mounting brackets to the sides of the player so they face upward.

(Fig. 19)

[1] Screw (4 × 8 mm)
[2] Mounting bracket

- Use the holes marked "H" to attach the mounting brackets to the player.

2. Check the place of mounting and drill holes (6.5 to 7 mm diameter) through the parcel shelf.
3. Pass hex-screws (6 × 50 mm) through the holes from the passenger compartment side, fit them to the screw holes of the mounting bracket, and install with the hex-nuts.

(Fig. 20)

[1] Hex-screw (6 × 50 mm)
[2] Parcel shelf
[3] Drill 6.5 to 7 mm diameter hole.
[4] Hex-nut (6 mm)

- *Ideally, when the player is being mounted under the parcel shelf, two persons should work together. One person should hold the player, and the other should tighten the hex-nuts. If you do this job on your own, take great care not to drop or knock the player.*

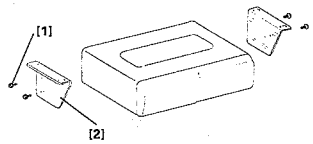


Fig. 19

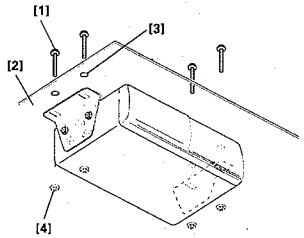


Fig. 20

Using the Clear Button

Once all wiring is complete, press clear button with a thin, pointed object. Though not a normal occurrence, the microprocessor which controls the operation of this unit can be affected by electrostatic noise. This generally is indicated by such symptoms as no power being supplied when you switch the unit on, failure of buttons and controls, or an abnormal display. Should this happen, press the clear buttons on the cassette player and the multi-play CD player with the tip of a pencil or something similar to reset their microcomputers.

Cassette player (KEH-P12RDS)

- The clear button can be located on the unit after you have removed the front panel. (Fig. 21)
  Refer to the previous page to find out how to remove the front panel.

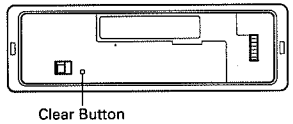


Fig. 21

Multi-play CD player (CDX-P11)

- Clear button is located inside the door. (Fig. 22)

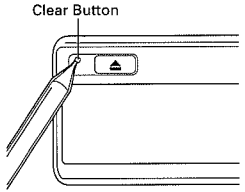


Fig. 22

Using the Removable Front Panel

Parts Identification

Fig. 1

[4] Eject
[6] Fast forward, Rewind/Direction change
[8] Detach button
[10] ③ Buzzer ON/OFF

The front panel of this unit can be removed as a theft deterrent.
Also, to prevent forgetting to remove the front panel, 5 seconds after the ignition is turned off, if the front panel is still attached, a buzzer will sound for a few seconds.
If you wish to cancel the sound of the buzzer, please do as follows: Hold down button ③ in Bank [10] and turn the ignition on. By repeating this procedure, the sound of the buzzer will be restored.

Detaching the Front Panel

1. Press button [8], and the right-hand side of the panel will eject.
2. To remove the front panel, pull its right-hand side toward you. (Fig. 23)

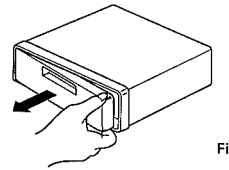


Fig. 23

- *Take care not to put pressure on the display or drop the front panel.*

3. Enclose for safekeeping the front panel that is removed in the supplied protective case. (Fig. 24)

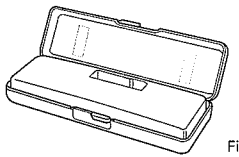


Fig. 24

Replacing the Front Panel

Push the front panel into the main body. (Fig. 25) (Fig. 26)

- *When replacing the front panel, do not put pressure on the display or control buttons.*

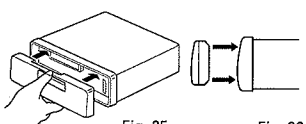


Fig. 25

Fig. 26

- *Install the front panel holding it parallel to the main unit. Installing the panel tilted, as shown in the illustrations below, may cause the hook on the front panel to destroy the main unit's electrodes. (Fig. 27) (Fig. 28) (Fig. 29)*

Fig. 27

Fig. 28

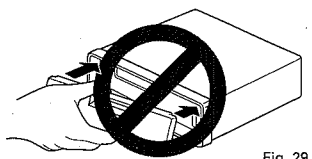


Fig. 29

- *Do not install the front panel while holding down buttons [4], [6] and [8] in Fig. 1. Doing so may destroy the buttons and the main unit.*
- *Note that if the front panel is not attached correctly, pushing button [8] may not release the panel, and the other control buttons may not function.*

Precautions

- *Do not touch the contacts on the front panel or on the unit body, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth. (Fig. 30) (Fig. 31)*

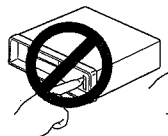


Fig. 30

Fig. 31

Precautions When Handling the Front Panel

- *Do not leave the front panel in any area exposed to high temperatures or direct sunlight.*
- *Do not drop the front panel or otherwise subject it to strong impact.*
- *Do not allow such volatile agents as benzine, thinner, or insecticides to come into contact with the surface of the front panel.*
- *Never try to disassemble the front panel.*

Function Button

Bank [11] can be used as function buttons. To select these buttons as function buttons, button [9] should be pressed.

When the Function Button is On:

(Indicator [23] appears on the display and button [9] lights in yellow.)

- Buttons in Bank [11] can now be used as function buttons.

When the Function Button is Off:

(Indicator [23] disappears and button [9] lights in red.)

- When the tuner is used, buttons [11] act as the tuner preset buttons (FM1 only).

Adjusting Volume and Tone

Parts Identification

Fig. 1

[1] Volume/Audio adjustment
[3] Source selector
[4] Eject
[5] Cassette door
[9] Function changeover button
[11] Preset/Function button
Function:
⑪ Illumination switch
[12] Display
[13] Shift

Switching Power On

Radio

Press button [3] to switch the tuner power on. Press button [3] again to switch the power off.

Tape

Insert the cassette tape through the cassette door [5], and the power will be automatically turned on to get start the tape being played back. To eject the tape, press button [4].

Changing the Source

When the cassette tape is inserted, the source changes at each press of the button [3]: Tape — Tuner — Multi-play CD player — OFF.

ENGLISH

Mode Selection

Each press of button [13] changes the mode as follows:
Volume adjustment (VOL) — Balance adjustment (FAD/BAL) — Pre-fader (P-FAD) — Tone adjustment (BAS/MID/TRE) — Loudness select (LOUD)

- When you are adjusting fader, balance, pre-fader, bass, middle or treble settings, the indicator will stop at the center setting briefly.
- Balance adjustment, pre-fader, tone adjustment, and or loudness select mode will be canceled after about 8 seconds.

Volume Adjustment

Pressing the (+) side of button [1] increases the volume, while the (–) side decreases it.
(Display shows "VOL 00" ~ "VOL 30".)

- *When driving your vehicle, be sure to keep the volume of the unit set low enough to allow you to hear sounds coming from outside.*

Balance Adjustment

Press button [13] to select balance adjustment mode. ("FAD" appears on the display.) Adjust the fader using the (+) or (–) side of button [1]. To adjust the balance, press either the (◄) or (►) side of button [1] to turn on "BAL" and use the (◄) or (►) side of the button.

Fader

The fader of this unit controls the balance between speakers ① and ② shown in (Fig. 32) on page 15. When you press the (+) side of button [1] the output from speaker ① increases and the output from speaker ② decreases. When you press the (–) side of button [1], the output from speaker ② increases and the output from speaker ① decreases.
(Display shows "FAD F9" ~ "FAD R9".)

- Please set "FAD 0" when using 2 speaker system.

Note:

This unit has a fader that controls the balance between speakers ① and ②, shown in (Fig. 32) on page 15, using button [1], and a pre-fader that controls the balance between speakers ① and ②, and speakers ③.

Balance

Pressing the (◄) side of button [1] shifts the balance to the left speaker, while the (►) side shifts it to the right speaker.
(Display shows "BAL L9" ~ "BAL R9".)

Pre-Fader Adjustment

The pre-fader function of this unit controls the balance between speakers ① and ②, and speaker ③, which are shown in (Fig. 32) on page 15.
Press button [13] to select pre-fader adjustment mode. When you press the (+) side of button [1] the output from speakers ① and ② increases and the output from speaker ③ decreases. When you press the (–) side of button [1], the output from speaker ③ increases and the output from spaekers ① and ② decreases.
(Display shows "P-FAD +9" ~ "P-FAD –9".)

Note:

This unit has a fader that controls the balance between speakers ① and ②, shown in (Fig. 32) on page 15, using button [1], and a pre-fader that controls the balance between speakers ① and ②, and speaker ③.

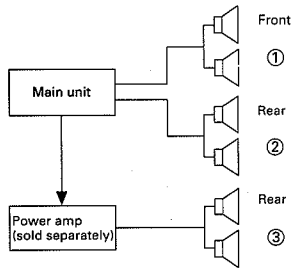


Fig. 32

Tone Adjustment

Press button [13] to select tone adjustment mode. ("BAS" appears.) Select the tone you wish to adjust using the (◄) or (►) side of button [1]. Each press of the (►) side changes the tone from BAS — MID — TRE, while each press of the (◄) side changes the tone from TRE — MID — BAS.

Bass Adjustment

Select the Bass mode.
Pressing the (+) side of button [1] increases bass, while the (–) side decreases bass.
(Display shows "BAS –6" ~ "BAS +6".)

Middle Adjustment

Select Middle adjustment mode.
Pressing the (+) side of button [1] increases middle, while the (–) side decreases middle.
(Display shows "MID –6" ~ "MID +6".)

Treble Adjustment

Select Treble adjustment mode.
Pressing the (+) side of button [1] increases treble, while the (–) side decreases treble.
(Display shows "TRE –6" ~ "TRE +6".)

Loudness Select

This "loudness" function enhances both the high and low ranges of sound to give even more power to output even at low volume.
Press button [13] to select loudness select mode. (The "LOUD" indicator appears on the display.)
Pressing the (►) side of button [1] turns the loudness function on; pressing the (◄) side turns it off.

Switching Illumination Color

You can select either green or red for the switch illumination color. Turn the function feature on. (See page 13.) To switch the illumination color, hold down button ⑪ in Bank [11] more than 2 seconds.

Using Source Level Adjuster

You may wish to adjust volume when you have changed the source to radio, tape, CD or when you have changed the radio band from FM to MW/LW. You can do so on the basis of the volume of FM as follows:

1. Use button [3] to change the source. (In case of radio, change the band to MW/LW.)
2. Hold down button [13] for about 2 seconds, and the display will show you the volume of the source.
   (Display shows "V –4" ~ "V +4".)
3. Pressing the (+) side of button [1] raises the volume and pressing the (–) side lowers it. About 8 seconds after the completion of the adjustment, the display returns to what it was showing before the adjustment.

- No adjustment can be made when an FM station is tuned in.

ENGLISH

Using the Radio

Parts Identification

Fig. 1
[1] Tuning/Local seek sensitivity/Seek, Manual
[2] TA/AF
[3] Source selector
[7] Band
[9] Function changeover button
[10] Preset
[11] Preset (FM1)/Function button
Function:
⑦ Frequency display
⑧ Local station
⑨ FM stereo/mono
⑩ Preset scan /Best stations memory (BSM)
⑫ EON/REG
[12] Display

Fig. 2
[14] FM stereo
[15] REG
[16] TA
[17] AF
[18] EON TP
[19] TP
[21] Local station
[22] FM mono
[23] Function indicator
[24] Frequency
[25] Manual
[26] Band
[27] Preset number

Note:
12 stations can be preset with ⑦ to ⑫ of Bank [11] for FM1 only. Press button [9] to switch between the function button and the preset button. (See page 13.)

Listening to the Radio

- **Electronic Tuner**

Frequency allocation differs depending upon the area. This unit has been designed in accordance with the frequency allocations for Western Europe, Asia, the Middle and Near East, Africa, Australia and Oceania. Use in other areas may result in improper reception of AM.
The RDS function does not work in regions with no RDS broadcast services.

1. Press button [3] to switch the radio power on.
2. Press button [7] to select a band.

F1 → F2 → M/L
(FM1) (FM2) (MW/LW)

Use the (◄) and (►) sides of button [1] to change between MW (531 — 1,602 kHz) and LW (153 — 281 kHz).
3. Use seek tuning to tune in a frequency.
Press the (►) side of button [1] to automatically tune in the next higher receivable frequency, and the (◄) side for a lower frequency.
4. Adjust volume and tone (see page 13).
5. Assign the tuned frequency to one of the buttons in Bank [10] (the buttons in Bank [11] are also used in FM1) (preset memory).
Press and hold down one of the buttons in Bank [10] (FM1 : [10] and [11]) for at least 2 seconds. The frequency is assigned to the selected button when the preset number [27] stops flashing on the display. Up to 18 FM stations (12 FM1 stations and 6 FM2 stations), and 6 MW/LW stations can be assigned to the preset memory buttons in Bank [10] (FM1 : [10] and [11]).
6. Once a frequency is assigned to a button in Bank [10], (FM1 : [10] and [11]) you just need to press that button to tune it in (FM1 : [10] and [11]).
This also causes the number of the button pressed to appear at position [27] on the display.
- You can preset 12 FM1 stations. Preset them with Bank [11] as described above.

Adjusting Seek Sensitivity

The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The local setting also has 4 seek tuning sensitivity levels for FM and 2 levels for MW/LW to match local conditions.

Changing the Local Seek Sensitivity
1. Use button [7] to select a band.
2. Hold down button ⑧ of Bank [11] for more than 2 seconds, and the display will show you the current local seek sensitivity for about 5 seconds.
3. While the local seek sensitivity remains on the display, press the (►) side of button [1] to increase the sensitivity level, and the (◄) side to decrease the level as shown below.
FM : L-1 = L-2 = L-3 = L-4
MW/LW: L-1 = L-2
The L-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.
- The display of local seek sensitivity returns to the frequency when about 5 seconds have elapsed after the change of sensitivity.

Switching between Local and DX
Press button ⑧ of Bank [11] to switch between Local and DX (distant) seek tuning. When "LOC.S" [21] is shown on the display, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.
1. Press both (◄) and (►) sides of button [1] at the same time to turn "MANU" [25] on.
2. Each press of the (►) side of button [1] increases the frequency in 50 kHz steps in the FM band, 9 kHz in the MW band and 1 kHz in the LW band. Pressing the (◄) side of button [1] decreases the frequency. Holding down either side of button [1] changes the frequency at high speed.

Switching between FM Stereo and Mono

Generally, it is best to allow the ARC (Automatic Reception Control) function to automatically set the optimum listening conditions. When stereo broadcasting is received, "⊂⊃" [14] will appear on the display. When there is a large amount of noise, you can press button ⑨ of Bank [11] for clearer mono reception ("MONO" [22] will appear on the display).

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in Bank [10] and [11] (FM1 only), from strongest to weakest. It comes in handy when trying to find local stations while driving.
1. Press button [7] and select a band.
2. Holding down button ⑩ of Bank [11] for about 2 seconds will start BSM search. At this time, "BSM" will flash on the display.
3. The frequency display will return once BSM search is complete, and frequencies are assigned to preset buttons.
- You can cancel BSM search by pressing button ⑩ of Bank [11] again.
- *If there are fewer than 6 strong stations (12 stations for FM1 only) in the area, some of the preset buttons will not be assigned frequencies, so they will retain any frequencies assigned to them previously.*
- *BSM search may take as long as 30 seconds in areas where there are few strong stations.*

Preset Scan Tuning

This function lets you automatically monitor the stations assigned to the preset buttons.
1. Press button ⑩ of Bank [11], and the preset number [27] will flash.
Each station assigned to the preset buttons will be automatically tuned in for about 8 seconds.
2. When you hear a station that you like, press button ⑩ of Bank [11] again to cancel preset scan tuning and remain at that station.

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Using the RDS Function

What is RDS?
RDS (Radio Data System) according to a CENELEC EN50067 is a system for transmitting data signals from FM broadcast transmitter along with the normal sound program. These data signals, which are imperceptable to listeners, are intended to aid radio listeners in tuning their receivers to a desired station. RDS receivers can decode these data signals for display or control purposes.
RDS digital signal includes various data, such as PI, PS, AF, TP, TA and EON.

PI .....Program Identification Code
PS .....Program Service Name
AF .....List of Alternative Frequencies
TP .....Traffic Program Identification Code (Similar to SK signal of ARI system)
TA .....Traffic Announcement Code (Similar to DK signal of ARI system)
EON.....Enhanced Other Network information Code. (In some countries. EON is not offered by broadcasters.)

RDS Function of this Unit
This unit has the following functions for making use of RDS data.
- PS, the name of the currently listened station is displayed.
- AF (Alternative Frequency) function. This enables the receiver to automatically retune to more suitable frequencies transmitting the same program.
- TP/TA, EON, user selectable reception of the traffic information service, offered by RDS.

Network/Station Name Display
Switch the tuner on and choose one of the 2 FM bands.
When you tune into an RDS station with manual or seek tuning, the frequency display changes to the network/station name display after a few seconds by means of the PS code.
- The RDS functions of this unit use RDS codes transmitted along with FM broadcasts. RDS doesn't work on the MW or LW bands.
- The RDS functions may not work properly in areas where the RDS transmissions are at an experimental stage or where there are flaws in the broadcasting system.
- Hold down button ⑦ of Bank [11] to change the network/station name display to a frequency display. The frequency will be displayed only while the button is being held down.

AF Function
This receiver retunes automatically to a more suitable transmitter, contained in the list of Alternative Frequencies (AF), to enable the motorist to keep listening to programs in the same network.

Example:
If a motorist travels as shown below, from point A to point B, (and has selected AF function) then the receiver will automatically retune to a more suitable frequency transmitting the same program. This is shown by the automatic retuning from 98.5 MHz to 107.5 MHz to 96.0 MHz to 102.5 MHz.

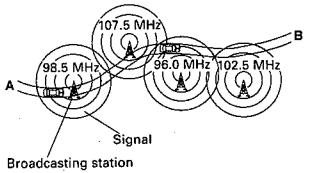

Fig. 33

To activate the Alternative Frequency Function, press button [2] for more than 2 seconds, "AF" [17] will appear on the display. Once tuned to a RDS station, as long as you drive within an area served by the same network, the receiver will automatically retune to a more suitable station transmitting the same program, by utilizing the data in the AF list.
- "PI SEEK" will appear on the display, if the AF function has been selected, and a suitable AF station cannot be found. In this case, the receiver will mute the radio sound and search the frequency band, in order to find a station with the same PI code. The receiver will return to the original frequency if the same or related PI code can not be found.
- The AF function will not work in the following cases:
  — when the receiver is tuned to a non-RDS station. (local station)
  — when the RDS station does not transmit any AF list data.
  — when the receiver can not receive the AF list due to disturbances.
  When the receiver is unable to find a PI code the "AF" [17] indicator will flash on the display.
  Thus indicating that the AF function cannot be performed.

Preset Recall
- When recalling preset stations in the AF mode, the tuner will be tuned to the stored frequency and the AF function will be operative i.e. when the signal of the recalled station is weak or has a different PI, the radio will look into the AF list and if necessary start a PI-seek in order to find a station with the same or related PI code.
  When the tuner is performing a PI seek "PI SEEK" is shown on the display.
  If the PI seek is successful, the tuner will be tuned to the new frequency that transmits the same programme service (i.e. with the same PI code) and the display will show the stored PS.
  If the PI seek is not successful, the tuner will return to the stored frequency. If a new station (with a different PI code) would be received on this frequency, this station will become audible. The display will show the frequency instead of PS.
- When recalling preset stations in the AF=OFF mode, the tuner will be tuned to the stored frequency and the display will show the stored PS. In case the tuned station has a PI code that is different from the stored one, the tuner will accept the new PI code and stay tuned to the initial frequency. The display will show the new PS when the signal of the tuned station is strong enough.

Listening to Regional Stations
In some countries a particular programme service may "opt out" during a certain part of the day in several regional variants at particular locations. Since these regional variants are broadcasting a different programme they temporally have a PI and a PS that is different from the main programme service. The PI's are mostly "generically linked". The AF list may either be common for all regional variants or each regional variant may have its own AF list.
In other countries there may be regional stations which are not an "opt out" of a particular main programme service but which have an independent existence. These regional stations all have a different PS. Their PI's may be "generically linked" and their AF lists may carry frequencies which are alternatives for that regional station only.

1) Regional OFF Mode
In the default condition, with the AF button [2] switched ON, the receiver is in the REG OFF mode. In this case the receiver will switch automatically to regional variants of the tuned programme service along the journey. This is of benefit when the regional variants just carry the same programme, but will become annoying if the receiver switches back and forth between different programmes. In this case it is recommended to put the receiver in the REG ON mode.

2) Regional ON Mode
When the radio is put in the REG ON mode, the radio will remain tuned to a specific regional variant as long as it is available. To put the radio in the REG ON mode, press button ⑫ of Bank [11]. "REG" [15] will appear on the display.
To cancel the REG ON mode i.e. to put the radio back in the default REG OFF mode, press button ⑫ of Bank [11] again. "REG" [15] will disappear from the display.

Traffic Information Reception

TP and EON-TP Function
When a traffic information station (TP station) is selected, "TP" [19] lights on the display, thus indicating traffic report can be received through this station. The "EON TP" [18] indicator will light on the display when a selected station (this network) is broadcasting EON information which cross-references at least one program service which carries traffic information, thus indicating traffic report can be received through another program service by using the EON function of this unit.

In both cases, by briefly pressing button TA [2], Traffic report waiting status will be entered. However, if you wish not to interrupt your radio program (eg: classical music program) by traffic report, the EON function of this unit can be set to OFF. Pressing button ⑫ of Bank [11] again, changes the status of the EON function, EON-ON = EON-OFF. This indication is shown on the display for approximately 3 seconds.
If only the "EON TP" [18] indicator is on but the EON function of this unit is OFF, it is not possible to receive traffic report through another program service. In this case, "TA" [16] (if traffic report waiting status is set to ON) will flash on the display to indicate this situation.

Traffic information reception by EON-TP.

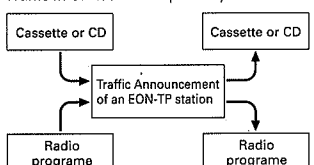

Fig. 34

Traffic Announcement Volume Adjustment
- The volume level for traffic information broadcasting is temporarily stored in memory. The next time you listen to traffic information, the previous volume level is used. If the volume level you receive is lower than VOL 15, it will be set to VOL 15.

TA Reception during CD or Cassette Play
- If the radio is already set to the FM band and tuned to a TP or EON-TP station, even when listening to the cassette or the multi-play CD player, when the button [2] is pushed ("TA" [16] is shown on the display), traffic report waiting will begin. When a traffic report begins, the system will switch from cassette or CD to the traffic report.

BSA Function
- While button [2] is on, ("TA" [16] is shown on the display) and AF is off, and you are listening to either the cassette or multi-play CD player, should the TP station become weak, the radio will start BSA (Best TP Station Auto Search) 10 seconds after "TP" [19] disappears from the display. The tuner will automatically tune to the strongest TP station in the area, and will stand by for a traffic bulletin. BSA does not work when the AF function is selected, so hold button [2] down for more than 2 seconds to turn the AF function off.

TP Alarm Function
- In AF mode, about 30 seconds after "TP" [19] disappears from the display, which occurs if the signal from the TP becomes weak, an alarm sounds for 10 seconds to tell you to tune to another TP stations.

Tuning Functions on each RDS modes

Tuning Mode	AF Mode	TA Mode & AF plus TA Mode
Seek Tuning will stop to find,	RDS Stations	TP or EON-TP Station
BSM will select and memorize in presets,	RDS Stations	TP Stations

Non-RDS stations suchs as those using the Swedish MBS system may be tuned in as RDS stations, but this is due to both systems using the same 57 kHz subcarrier frequency and is not a malfunction of the unit.

Tuning Steps
The tuning step is normally 50 kHz during seek tuning on an FM band. However this tuning step changes to 100 kHz when the set is in AF or TP mode. In some countries it may be desired to set a tuning step of 50 kHz in AF mode by holding down button ① of Bank [10] while turning the ignition key from OFF to ON.
- During manual tuning, the step does not change; it remains fixed at 50 kHz.
- The tuning step will return to 100 kHz if the batteries supply is temporarily disconnected or the clear button is pressed.
- In AF mode, only those stations being broadcast at 100 kHz steps are subject to AF reception (CENELEC STANDARD).

Using the Tape Deck

Parts Identification

Fig. 1
[4] Eject
[5] Cassette door
[6] Fast forward, Rewind/Direction change
[10] ④ Dolby B NR
⑤ Music search
⑥ Metal
[12] Display

Fig. 3
[28] Music search
[29] Metal
[30] Tape play
[31] Dolby B NR

About Cassette Tapes
- *Do not use tapes longer than C-90-type (90 min.) cassettes. Longer tapes can interfere with tape transport.*
- *A loose or warped label on a cassette tape may interfere with the eject mechanism of the unit or cause the cassette to become jammed in the unit. Avoid using such tapes or remove such labels from the cassette before attempting use.*

ENGLISH

- *Storing cassettes in areas directly exposed to sunlight or high temperatures can distort them and subsequently interfere with tape transport. (Fig. 35)*

Fig. 35

- *Store unused tapes in a tape case where there is no danger of them becoming loose or being exposed to dust.*

Cleaning the Head

If the playback head becomes dirty, sound quality will suffer. Periodically (once or twice a month) clean the head with a cotton swab soaked with alcohol. (Fig. 36)

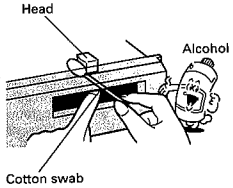

Fig. 36

Listening to a Tape

1. By inserting the cassette tape into slot [5], power will be turned on and the tape will begin to play.

At this time, the tape running tape play indicator [30] will light up to your satisfaction.

2. Adjust volume and tone (see page 13).

3. To eject the cassette, press button [4].

- *Do not try to eject the cassette immediately after insertion, as it may result in malfunction. Wait a few seconds.*

Changing Program

Push the fast forward and rewind buttons [6] together to switch from one side of the tape to the other (from Side A to Side B or vice versa).

Dolby B NR

To hear a tape recorded using a Dolby NR system, press button ④ of Bank [10]. ("DD" [31] appears.)

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

Tape Selector

When using metal tapes and chrome tapes, press button ⑥ of Bank [10]. ("MTL" [29] appears.)

Using Fast Forward and Rewind

Since the transport can be in either direction, both the left and right high-speed tape transport buttons [6] can be regarded as fast forward/rewind buttons.

For fast forward, press the high-speed tape transport button [6] that corresponds to the direction that is shown by the tape play indicator [30]. When the end of the tape is reached, playback will automatically begin from the opposite side of the tape (Auto-reverse).

For rewind, press the button [6] that is opposite that of the direction shown by the tape play indicator [30]. When the end of the tape is reached, playback will automatically begin from the beginning of the same side of the tape (Auto-replay).

When you release fast forward/rewind, lightly press button [6] located on the opposite side of the one you pressed to fast forward or rewind.

- "<-- -->" [30] will flash when the tape is fast forwarding or rewinding.

Using Music Search

Returning to the beginning of selection A

Press button ⑤ of Bank [10] ("MS" [28] appears) and then the high-speed tape transport button [6] for the direction opposite that is shown by the tape play indicator [30]. Playback will automatically start from the beginning of selection A.

Moving from selection A to selection B

Press button ⑤ of Bank [10] ("MS" [28] appears) and then the high-speed tape transport button [6] that corresponds to the direction shown by the tape play indicator [30]. Playback will automatically start from the beginning of selection B.

To enable regular fast forward/rewind operations, press button ⑤ of Bank [10] again ("MS" [28] turns off) to turn the function OFF.

The following errors will cause the music search function to operate improperly, even though the unit is not malfunctioning. (Fig. 37)

- *Unrecorded "blank" portions between selections less than 4 seconds — the blank portion cannot be detected by the unit.*
- *Pauses in recorded conversations longer than 4 seconds — the unit reads these as blanks between selections.*
- *Portions recorded at very low volume for more than 4 seconds — the unit reads these as blanks between selections.*

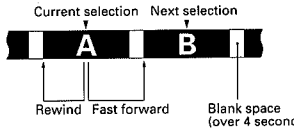

Fig. 37

Playing Compact Discs

Discs

- *Only use compact discs (optical digital audio discs) bearing the mark shown in Fig. 38.*

COMPACT disc DIGITAL AUDIO

Fig. 38

- *Be sure never to touch the signal surface when handling discs. Pick up discs by grasping the outer edges or the edges of the hole and the outer edge. (Fig. 39)*

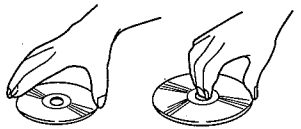

Fig. 39

- *Do not affix paper or tape, and avoid scratching the side of the disc which contains the label (contents of disc).*
- *The disc revolves at high speed within the player unit, so defective (cracked or badly bent) discs should not be used.*

- *Dust and/or finger smudges will have no direct effect on the signal recorded on the disc, but dirt can decrease the amount of light reflected from the recorded surface, thus affecting sound quality. If the disc should become soiled, gently wipe the surface with a soft lint-free cloth, wiping from the center of the disc to the edge. (Fig. 40)*

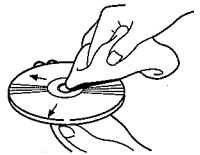

Fig. 40

- *Do not use record sprays or antistatic agents. Such volatile chemicals as benzine and thinner can also damage the surface of the disc and should not be used.*
- *As with traditional audio records, compact discs are made of plastic. To avoid warping, keep the discs in their cases and do not store them in places exposed to direct sunlight.*

Using the Compact Disc Magazine

Usable Magazines

- Only use magazines bearing the " 8cm " mark. If a magazine not bearing this mark is loaded, it may get stuck wide or the player may fail.

Precautions when handling magazines

- *Do not put the magazine in a place where it will be exposed to high temperatures or direct sunlight.*
- *Do not disassemble the magazine.*
- *Take care not to drop the magazine or knock it against anything.*
- *Do not use cracked or warped trays.*
- *Never insert anything other than discs. Do not attach a label or tape to a disc.*
- *The use of benzine, thinner, insecticide, or other volatile chemicals may damage the magazine surface.*

Extra magazines

If you need more magazines, please ask your nearest dealer for magazine JD-T612.

Notes on 8-cm (3-inch) CDs

- *Do not use an 8-cm CD adapter. If it is used, the player may fail. To load an 8-cm CD, you need a special 8-cm CD tray (Part No. CXA5485). Ask your Pioneer service station about it.*

Inserting discs

Load the discs in the magazine supplied. Up to 6 discs can be loaded in the magazine. The discs are numbered 1 to 6 from the bottom disc tray.

1. Hold down the magazine lock button and, pull the tray out.

(Fig. 41)
[1] Lock button

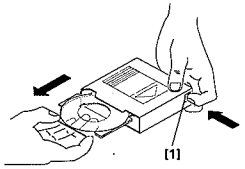

Fig. 41

- *Pull the tray out by holding it from underneath. (Fig. 41) The tray is detached from the magazine. Do not drop the tray or disc and so damage it.*

2. Put 1 disc on the disc tray, label downward.

(Fig. 42)
[1] Position the disc with the label downward.
[2] Disc tray

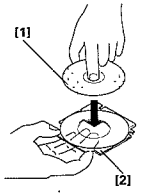

Fig. 42

- If the disc is loaded upside down, it will not play. The label side must face downward.
- Do not touch the recorded side of a disc when inserting or removing it.

3. Insert the tray horizontally along the right and left grooves of the magazine until it clicks. (The disc must not lift from the tray.)

(Fig. 43)
[1] Disc tray
[2] Groove

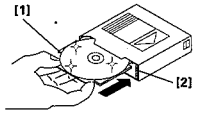

Fig. 43

- *If the tray is not aligned with the right and left grooves, it cannot be pushed to the end. Do not bend or force the tray.*
- *Always load 6 trays in a magazine to prevent loss or warping of trays.*
- If you load a disc with the label generally printed in black facing up, not only will the player not be able to recognize whether the disc is set or not, but also, if you have a cassette player, the controller will not display an error message to let you know about it. So make sure all the discs in each magazine have their label sides facing down.

Loading and removing the magazine

1. Slide and open the door.
Open it fully until it locks with a click. (Fig. 44)

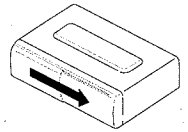

Fig. 44

2. Insert the magazine.
- Make sure that the magazine is loaded with discs before inserting it into the player.
- Be careful to insert the magazine into player with the mark facing upward.

- *If the label on the magazine is coming off or wrinkled up, it may damage the eject mechanism, and in some cases, the magazine may not be ejected. Therefore, remove a damaged label completely before use.*

(Fig. 45)
[1] Insert the magazine with the arrow upward

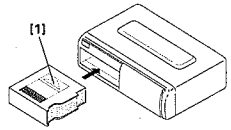

Fig. 45

3. Slide and close the door.
- *Never leave the door open while playing discs. The entry of dirt, dust, or any other foreign matter into the player may cause it to fail. (Fig. 46)*

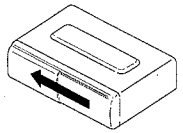

Fig. 46

4. To remove the magazine, open the door and press the eject button. If the door is not fully open, the magazine will not be ejected.

(Fig. 47)
[1] Eject button

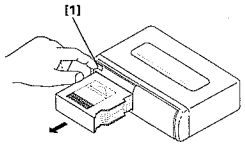

Fig. 47

Parts Identification

Fig. 1
[1] Track number search/Fast forward, Reverse
[3] Source selector
[10] Disc number search
[11] Function button
⑨ Play mode switching
⑩ Scan play/Random play
⑫ Pause
[12] Display

Fig. 4
[23] Function indicator
[32] Multi-play CD player display
[33] Manual
[34] Magazine repeat mode display
[35] Disc repeat mode display
[36] Play elapse time display
[37] Track number
[38] Disc number

Using the Multi-Play CD Player

1. Press button [3] to change the display to the multi-play CD player mode and to begin disc play.
Each press of button [3] changes the mode as follows:
Tape — Tuner — Multi-play CD player — OFF.

2. Use the Disc Number Search function to select a disc.
Select the desired disc by pressing one of the Disc number search buttons. The number of the disc selected appears at position [38] on the display.
- If the number at position [38] on the display does not change when you press a Disc number search button, it means that there is no disc loaded in that tray.

3. Adjust volume and tone (see page 13).

4. To stop disc play, press button [3].
At another press, the normal play resumes from about where it stopped.

Note:
- When you turn the power on or change the disc to be played, the multi-play CD player may perform a preparatory operation (verifying there is a disc, reading disc information, etc.). "READY" is displayed during this time.
- When the multi-play CD player is not working correctly, an error message appears on the display (Ex.: "ERROR-80"). (See page 29.)
- After you press a Disc number search button, it may take some time before play begins due to the time necessary to load and set the disc in the mechanism.

Track Number Search

The desired track on the disc currently being played can be selected by track (or song) number.
Confirm that Track Number is shown at Position [37] on the display. If not, press button ⑦ of Bank [11].
Press the (►) side of button [1] to increase the number at Position [37], or the (◄) side to decrease the number. Holding either side of button [1] changes the track number at high speed.

Using Fast Forward and Reverse

1. Press both (◄) and (►) sides of button [1] at the same time to turn "MANU" [33] on.
2. Press the (►) side of button [1] for fast forward, and the (◄) side for reverse.
- Sound is output during fast forward and reverse operations.

Repeat

You can select one of the play modes (repeat modes) listed below.

Play mode (repeat mode)	Operation
One-Track Repeat	Play the current track repeatedly. • When you perform track number search or fast forward or rewind, the mode changes to disc repeat mode. • Switching the disc switches to magazine repeat mode.
Disc Repeat	Play the same disc repeatedly. • Switching the disc switches to magazine repeat mode.
Magazine Repeat	Play all discs loaded in the magazine in the multi-play CD player repeatedly. All discs in the magazine are played repeatedly from the first disc.

Each press of button ⑨ in Bank [11] causes the mode to change as follows:
One-Track Repeat ("RPT" appears on the display [36]) — Disc Repeat ("DISC" [35] appears) — Magazine Repeat ("M-CD" [34] appears)

ENGLISH

Random Play

The microcomputer of the multi-play CD player can play tracks on discs in a random order. Random play is performed according to the current play mode (repeat mode) as follows:

Play mode (repeat mode)	Tracks to be played at random
One-Track Repeat	All tracks on the disc being played. • The play mode changes to disc repeat mode.
Disc Repeat	All tracks on the disc being played.
Magazine Repeat	All tracks on the discs in the magazine being played.

1. Select the desired random play mode (repeat mode). (See page 27.)
2. Hold down button ⑩ in Bank [11] for more than 2 seconds. ("RDM" appears on the display [36].) To cancel random play, hold down button ⑩ in Bank [11] for more than 2 seconds again. ("RDM" disappears.)

Using Scan

The first parts of each track are played in succession for about 10 seconds. This function is useful to search for the track or disc you want to listen to. Scan is performed according to the current play mode (repeat mode) as follows:

Play mode (repeat mode)	Tracks to be scanned and played
One-Track Repeat	All tracks on the disc being played. • The play mode changes to disc repeat mode.
Disc Repeat	All tracks on the disc being played.
Magazine Repeat	The first tracks of all the discs in the magazine being played.

1. Select the desired scan play mode (repeat mode). (See page 27.)
2. Press button ⑩ in Bank [11]. ("SCAN" appears on the display [36].) The first parts of all tracks are played in succession for about 10 seconds.
3. When you hear the track you want, press button ⑩ in Bank [11] again to cancel Scan. ("SCAN" disappears.) The track (disc) being played is then plays to the end.

- The previous function automatically resumes when a piece of music with which Scan began returns.

Pausing

1. Press button ⑫ in Bank [11] to pause during disc playback ("PAUSE" appears on display [36]).
2. Press button ⑫ in Bank [11] again to release pause.

- You can select a track using the track number search during pause. ("PAUSE" is off while a track is being searched.) When the track search ends, the found track is paused at its beginning.

Error Mode

If there is a problem with CD play, an error code will be displayed on the connected cassette player display. (Ex. ERROR–11)
If an error is displayed, refer to the table below to identify the problem. If the error is displayed even after corrective action is taken, contact your dealer or the nearest authorized PIONEER Service Station.

E: Error number
C: Cause
T: Treatment

E: 11, 12, 30
C: The disc is dirty.
T: Clean the disc.

E: 11, 12, 30
C: The disc is scratched.
T: Replace the disc.

E: 11, 12, 14
C: Insert the disc with the label side up.
T: The disc is inserted with the label side down.

E: 14
C: An unrecorded CD-R is being used.
T: Check the disc.

E: 80
C: An empty magazine is in the multi-play CD player.
T: Insert discs into the magazine.

E: 10, 12, 50, 60, 70, A0
C: Electrical or mechanical fault.
T: Turn the car ignition switch off and on again, or press the source switch on the cassette player to set CD playback again. If the error indication does not disappear, contact your nearest Pioneer service center or station.

Specifications

Cassette player (KEH-P12RDS)

General

Power source ..... 14.4 V DC (10.8 — 15.6 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 6.0 A
Dimensions (chassis) ..... 178 (W) × 50 (H) × 150 (D) mm
(front face) ..... 188 (W) × 58 (H) × 15 (D) mm
Weight ..... 1.5 kg

Amplifier

Maximum power output ..... 22 W × 4 (EIAJ)
Continuous power outpu ..... 14 W × 4 (DIN45324, +B = 14.4 V)
Load impedance ..... 4Ω (4 — 8Ω allowable)
Preout output level/output impedance
..... 500 mV/1 kΩ
Tone controls (bass) ..... ±12 dB (100 Hz)
(middle) ..... ±12 dB (1 kHz)
(treble) ..... ±12 dB (10 kHz)
Loudness contour ..... +10 dB (100 Hz), +7 dB (10 kHz)
(Volume: –30 dB)

Tape player

Tape ..... Compact cassette tape (C-30 — C-90)
Tape speed ..... 4.8 cm/sec.
Fast forward/rewind time ..... Approx. 100 sec. for C-60
Wow & flutter ..... 0.13 % (WRMS)
Frequency response ..... Metal: 40 — 17,000 Hz (±3 dB)
Stereo separation ..... 45 dB
Signal-to-noise ratio
..... Metal: Dolby B NR IN: 63 dB (IEC-A network)
Dolby NR OUT: 55 dB (IEC-A network)

FM tuner

Frequency range ..... 87.5 — 108 MHz
Usable sensitivity ..... 11 dBf (1.0μV/75Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 16 dBf (1.7μV/75Ω, mono)
Signal-to-noise ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 — 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

MW tuner

Frequency range ..... 531 — 1,602 kHz
Usable sensitivity ..... 18μV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

LW tuner

Frequency range ..... 153 — 281 kHz
Usable sensitivity ..... 30μV (30 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

Multi-play CD player (CDX-P11)

General

System ..... Compact disc audio system
Usable discs ..... Compact Disc
Signal format ..... Sampling frequency: 44.1 kHz
Number of quantization bits: 16; linear
Power source ..... 14.4 V DC (10.8 — 15.6 V allowable)
Max. current consumption ..... 1.0 A
Weight ..... 2.4 kg
Dimensions ..... 275 (W) × 69 (H) × 155 (D) mm

Audio

Frequency characteristics ..... 5 — 20,000 Hz (±1 dB)
Signal-to-noise ratio ..... 100 dB (1 kHz) (IEC-A network)
Dynamic range ..... 94 dB (1 kHz)
Output level ..... 1,000 mV (1 kHz, 0 dB)
Number of channels ..... 2 (stereo)

Note:
Specifications and the design are subject to possible modification without prior notice due to improvements.

PIONEER ELECTRONIC CORPORATION
4-1, Meguro 1 chome, Meguro-ku, TOKYO, 153, JAPAN
PIONEER ELECTRONICS (USA) INC.
P.O. Box 1760, Long Beach, California 90801, U.S.A.
TEL: (800) 421-1404
PIONEER ELECTRONIC (EUROPE) N.V.
Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
TEL: 03/750.05.11
PIONEER ELECTRONICS AUSTRALIA PTY. LTD.
178-184 Boundary Road, Braeside, Victoria 3195, Australia
TEL: (03) 580-9911
PIONEER ELECTRONICS OF CANADA, INC.
300 Allstate Parkway Markham, Ontario L3R 0P2, Canada
TEL: (416) 479-4411

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